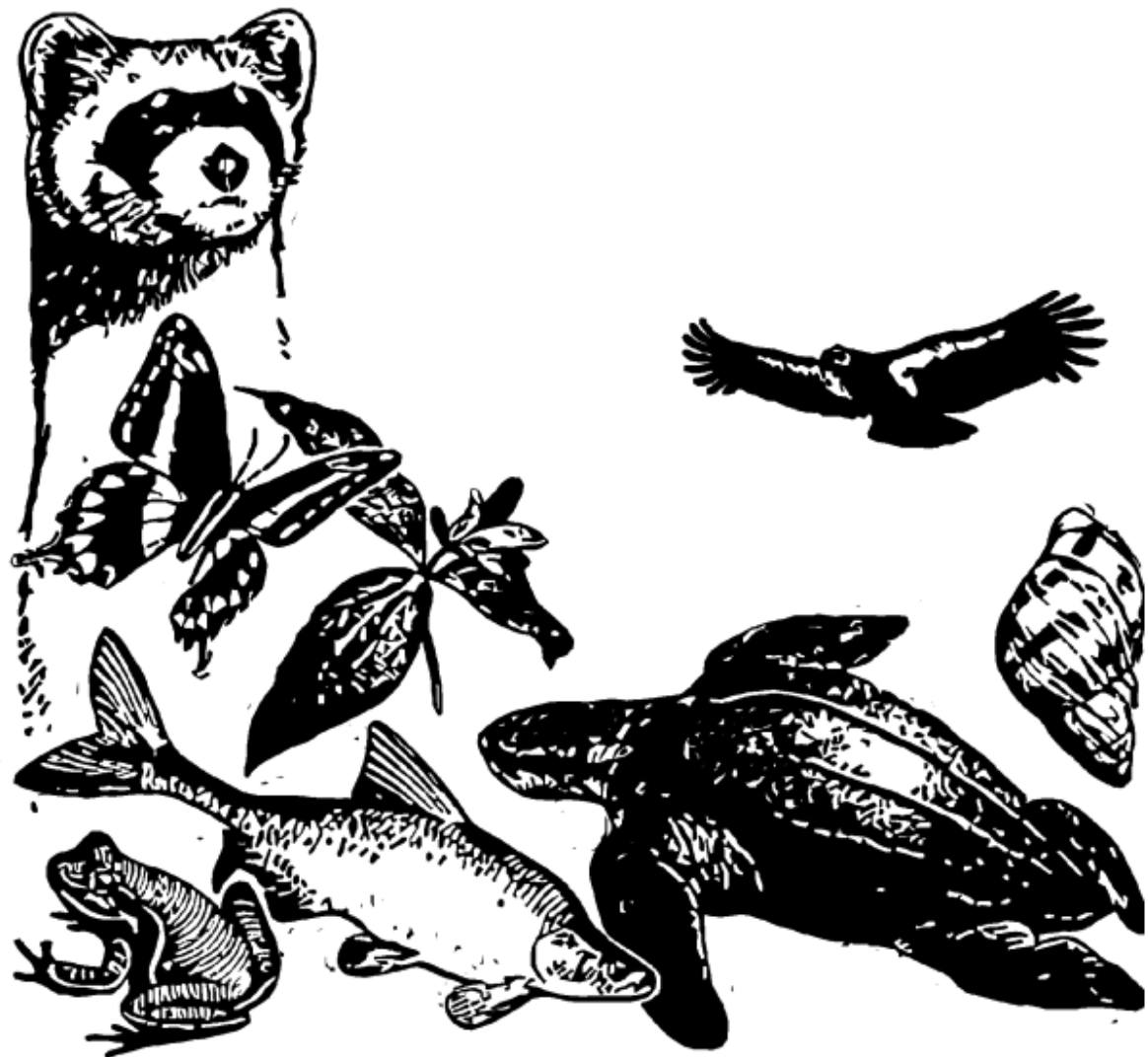


NLEB Project Review in Michigan

Northern Long-eared Bat

Generated March 07, 2022 05:38 PM UTC, IPaC v6.70.9-rc6



Northern Long-eared Bat Project Review in Michigan

Table of Contents

I. BACKGROUND INFORMATION	2
NLEB in Michigan	2
II. VOLUNTARY CONSERVATION MEASURES.....	3
III. ESA GUIDANCE: PRIVATE LANDOWNERS/NON-FEDERAL PROJECTS	3
In Michigan, what is required if there are no known NLEB hibernacula or roost trees near my project?.....	4
NLEB 4(d) Rule Take Prohibitions	4
Michigan Known Hibernacula and Roost Tree Locations for NLEB	5
Where are the known NLEB hibernacula in Michigan?	5
Where are the known NLEB roost trees in Michigan?.....	6
Map of Known NLEB Occurrence, Roosts, and Hibernacula in MI.....	7
IV. ESA GUIDANCE: FEDERAL PROJECTS.....	8
1. Standard Section 7 Consultation:	8
2. NLEB Streamlined Consultation (optional for Federal projects that may affect but will not involve prohibited take of NLEB):	8
3. Range-wide Programmatic Consultation for Indiana Bat and Northern Long-eared Bat (optional for Federal transportation projects that may affect NLEB):	9
V. MICHIGAN ECOLOGICAL SERVICES FIELD OFFICE CONTACT INFORMATION.....	9

I. BACKGROUND INFORMATION

The northern long-eared bat (NLEB) is one of the species of bats most impacted by the disease white-nose syndrome (WNS). Due to declines caused by WNS and continued spread of the disease, the NLEB was listed as threatened under the Endangered Species Act (ESA) on April 2, 2015. The U.S. Fish and Wildlife Service (Service) also developed a final 4(d) rule, which was published in the *Federal Register* on January 14, 2016. The 4(d) rule specifically defines “take” prohibitions for the species.

For more information on NLEB, its listing and the 4(d) rule, visit:

<https://www.fws.gov/Midwest/endangered/mammals/nleb/>

NLEB in Michigan

The NLEB is documented in many Michigan counties and is believed to range throughout the entire state. Therefore, unless presence/absence surveys conducted in accordance with Service guidelines

(<https://www.fws.gov/MIDWEST/Endangered/mammals/inba/inbasummersurveyguidance.html>, and also available via IPaC) indicate the probable absence of the species, NLEB are considered potentially present wherever suitable habitat exists within the state.

Suitable Habitat for NLEB:

During the winter, NLEB hibernate in mines, caves, or similar structures. Many NLEB hibernacula have been documented in Michigan; however, our knowledge of these overwintering areas throughout the state is likely incomplete.

Suitable summer habitat for NLEB consists of a wide variety of forested habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats, such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roost trees (i.e., live trees and/or snags ≥ 3 inches DBH that have exfoliating bark, cracks, crevices, and/or cavities), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure.

Individual trees may be considered suitable habitat when they exhibit characteristics of suitable roost trees and are within 1000 feet of other forested/wooded habitat. NLEB have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat boxes; therefore, these structures should also be considered potential summer habitat.

For more information on NLEB, its listing and the 4(d) rule, visit:

<https://www.fws.gov/Midwest/endangered/mammals/nleb/>

II. VOLUNTARY CONSERVATION MEASURES

NLEB benefit from the promotion of mature forest habitat, particularly hardwood/mixedwood stands containing standing snags, dying trees, and waterbodies such as streams, ponds, and forested wetlands. As NLEB are known to avoid traversing large open areas outside of migration, the protection and creation of wooded corridors (such as tree lines) can be extremely beneficial in connecting fragmented patches of suitable roosting/foraging habitat.

In general, projects that involve the trimming, burning, girdling, or clearing of suitable roost trees are encouraged to schedule these activities outside of the summer roosting period, which is generally April through September in Michigan. When winter tree removal is not feasible, avoiding the months of June and July (period when young bats are unable to fly) likely offers some protection for roosting NLEB that may be present.

Implementing conservation measures for NLEB helps to protect other native bat species, several which are experiencing recent population declines as a result of WNS and/or other factors. As significant predators of nocturnal insects, including many crop and forest pests, bats are important to Michigan's agriculture and forests. For example, Whitaker (1995)¹ estimated that a single colony of 150 big brown bats (*Eptesicus fuscus*) would eat nearly 1.3 million pest insects each year. Boyles et al. (2011)² noted that the "loss of bats in North America could lead to agricultural losses estimated at more than \$3.7 billion/year," and using their data for Michigan alone, we totaled the estimated value at over \$500 million per year (assuming standard crop pest survival). Taking proactive steps to help protect bats may be valuable to agricultural and timber producer yields and pest management costs.

Continue to the following sections for ESA guidance for Federal and non-Federal projects in Michigan.

III. ESA GUIDANCE: PRIVATE LANDOWNERS/NON-FEDERAL PROJECTS

NLEB use a wide variety of forested habitats but are not found in all wooded areas in Michigan. The species' local distribution and abundance is influenced by both the distance to hibernacula and the quality of available habitat. Although it can be difficult to predict where the species may occur, once NLEB colonize a forest habitat for raising their young (pups), they will often return to the same areas annually.

As a result of this fidelity to specific locations, the Service's approach to implementation of the ESA is based in part on "known" locations where important habitat for NLEB has been documented; namely, hibernacula and maternity roost trees.

¹ Whitaker, J.O. 1995. Food of the Big Brown Bat *Eptesicus fuscus* from Maternity Colonies in Indiana and Illinois. American Midland Naturalist 134(2):346-360.

² Boyles, J.G., P.M. Cryan, G.F. McCracken, and T.H. Kunz. 2011. Economic Importance of Bats in Agriculture. Science 332:41-42.

Please note that projects that require State permits or authorizations that implement Federal laws, or are supported by Federal funds (e.g., Clean Water Act, transportation projects), may have additional requirements under or similar to Section 7 of the ESA, as described in [section: IV. ESA GUIDANCE: FEDERAL PROJECTS](#).

Additionally, please contact the Michigan Ecological Services Field Office (contact information at the end of this document) for project-specific recommendations for wind development projects. Utility-scale wind turbines may attract and cause mortality of NLEB and warrant additional considerations.

In Michigan, what is required if there are no known NLEB hibernacula or roost trees near my project?

The Service does not require private landowners to conduct surveys for ESA-listed bats on their lands, nor do we require our guidelines for NLEB to be followed on lands where no roosts or hibernacula are known to occur. However, our records of these locations in Michigan are limited, and we expect NLEB roosts to be present in many locations in addition to those listed in this document.

NLEB 4(d) Rule Take Prohibitions

The definition of “take” pursuant to the ESA includes to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect (see 50 CFR 17.3 for details). Our implementing regulations further define the term “harm” to include any act which actually kills or injures fish or wildlife, and emphasize that such acts may include significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife.

The final 4(d) rule for the NLEB (50 CFR 17.40(o)) was published on January 14, 2016. Under the final rule, prohibitions in Michigan include:

- Actions that result in the incidental take of NLEB in known hibernacula.
- Actions that result in the incidental take of NLEB by altering a known hibernaculum’s entrance or interior environment if it impairs an essential behavioral pattern, including sheltering NLEB.
- Tree-removal activities that result in the incidental take of NLEB when the activity: (1) occurs within 0.25 mile of a known hibernaculum; or (2) cuts or destroys known occupied maternity roost trees, or any other trees within a 150-foot radius of the maternity roost tree, during the pup season (June 1 through July 31).

Please note that not all tree-removal activities within the buffer of a hibernaculum or maternity roost tree will result in take. The timing and extent of tree removal may be an important consideration in those circumstances; please contact the Michigan Ecological Services Field Office to discuss your project plans in more detail. If your activity may result in incidental take that is prohibited based on the above, we will work with you to determine whether a permit pursuant to the ESA may be applicable.

Michigan Known Hibernacula and Roost Tree Locations for NLEB

We have compiled location information for NLEB hibernacula and known roosts trees in Michigan. This information can be used to help project planners in determining the applicability of provisions of the NLEB final 4(d) rule under the ESA. Please use the tables below to see if we have information that may be applicable to your project.

If you are planning a project that may impact suitable habitat in the Michigan townships below, please contact our office with more specific information on the location of your project, and we will confirm for you whether there are any known hibernacula within ¼ mile of your project or any known roost trees within 150 feet of your project.

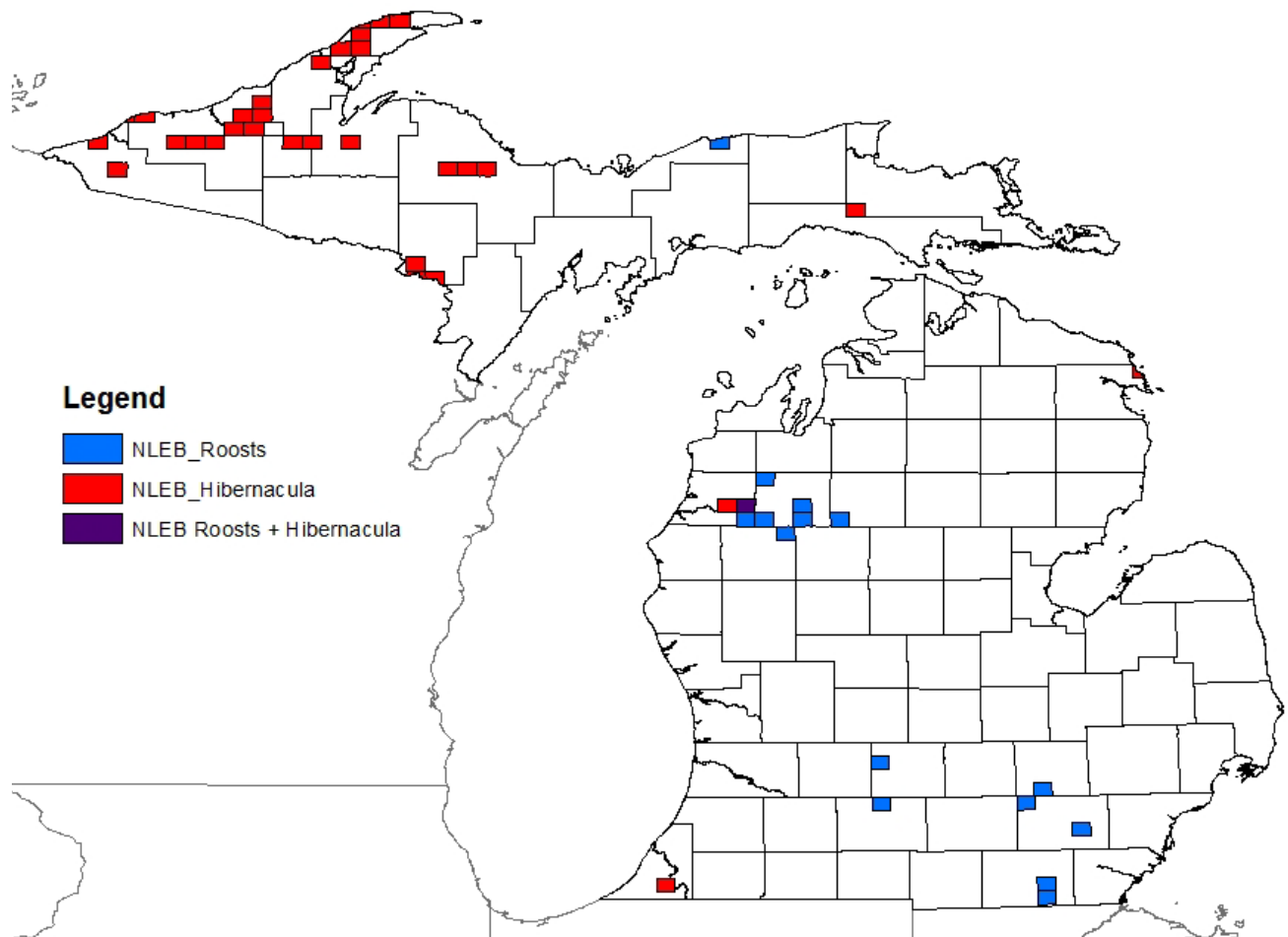
Where are the known NLEB hibernacula in Michigan?

Known NLEB in Michigan			
County	Townships Containing Hibernacula and/or Buffer Areas	Number of Hibernacula	Landownership Within Buffer(s)
Alpena	Alpena (T32NR9E)	1	Public
Baraga	L'Anse (T49NR33W)	1	Private
Berrien	Buchanan (T7SR18W)	1	Private
Dickinson	Breitung (T40NR30W, T39NR30W), Norway (T39NR29W)	8	Private (8)
Gogebic	Ironwood (T49NR46W); Bessemer/Wakefield (T47NR45W)	2	Private (1), public (1)
Houghton	Adams/Quincy/Franklin/Stanton (T55NR34W); Calumet (T56NR33W); Laird (T49NR35W, T49NR36W); Schoolcraft (T56NR32W)	3	Private (1), public (2)
Keweenaw	Allouez (T57NR32W, T58NR32W); Eagle Harbor/Grant (T58NR30W); Eagle Harbor/Houghton (T58NR31W)	10	Private (9), private + public (1)
Mackinac	Hendricks (T44NR7W)	4	Public (4)
Manistee	Dickson (T22NR14W, T22NR13W)	1	Private + public
Marquette	Ely (T47NR28W); Tilden (T47NR27W); Richmond (T47NR26W)	3	Private (3)
Ontonagon	Bohemia (T52NR37W); Carp Lake (T51NR44W, T51NR43W); Greenland (T51NR37W, T51NR38W, T50NR38W); Matchwood (T49NR41W, T49NR42W); Rockland (T50NR39W, T49NR40W)	42	Private (20), public (8), private + public (16)

Where are the known NLEB roost trees in Michigan?

Known NLEB Roost Tree Locations in Michigan			
County	Townships Containing Roosts and/or Buffer Areas	Number of known roosts	Landownership Within Buffer(s)
Alger	Burt (T49NR14W)	5 (all female)	Public (5)
Calhoun	Convis (T1SR6W)	1	Public (1)
Eaton	Vermontville (T3NR6W)	1 (female)	Private (1)
Lake	Dover (T20NR11W)	4 (all female)	Public (4)
Lenawee	Ogden (T8SR4E), Palmyra (T7SR4E)	81	Private (81)
Livingston	Putnam (T1NR4E)	2 (1 female)	Private (1), public (1)
Manistee	Dickson (T22NR13W), Norman (T21NR13W)	4 (all female)	Private (2), public (2)
Missaukee	Richland (T21NR8W)	4 (all female)	Private (4)
Washtenaw	Lyndon (T1SR3E), Pittsfield (T3SR6E)	3 (2 female)	Private (2), public (1)
Wexford	Cherry Grove (T21NR10W), Selma (T22NR10W), South Branch (T21NR12W), Wexford (T24NR12W)	20 (16 female)	Private (17), public (3)

Map of Known NLEB Occurrence, Roosts, and Hibernacula in MI



***Map last updated 7/22/2016. Map will be updated as additional information becomes available.**

IV. ESA GUIDANCE: FEDERAL PROJECTS

1. Standard Section 7 Consultation:

Under the ESA, requirements for Federal projects (i.e., projects funded, authorized, permitted, or implemented by a Federal agency) are different than requirements for wholly private or otherwise non-Federal projects. The ESA mandates all Federal departments and agencies to conserve listed species and to utilize their authorities in furtherance of the purposes of the ESA. Section 7 of the ESA, called “Interagency Cooperation,” is the mechanism by which Federal agencies ensure the actions they conduct, including those they fund or authorize, do not jeopardize the existence of any listed species. Federal agencies must request a list of species and designated critical habitat that may be present in the project area from the Service (i.e., via IPaC, on our website at

<https://www.fws.gov/midwest/Endangered/section7/spranges/MIs7listrequest.html>, or by contacting our office). Then they must determine whether their actions may affect those species or critical habitat. If a listed species or critical habitat may be affected, consultation with the Service is required. For general guidance on Section 7(a)(2) obligations for Federal projects, and step-by-step instructions on the process, please visit: <https://www.fws.gov/midwest/Endangered/section7/s7process/index.html>

Please note that Section 7 obligations or similar requirements may also apply to State permits or authorizations that implement Federal laws or projects that are supported by Federal funds (e.g., Clean Water Act, transportation projects).

2. NLEB Streamlined Consultation (optional for Federal projects that may affect but will not involve prohibited take of NLEB):

Federal actions that involve incidental take not prohibited under the final 4(d) rule for the NLEB may still result in effects to individual NLEB. As discussed above, section 7 of the ESA requires consultation with the Service if a Federal agency's action may affect a listed species. This requirement does not change when a 4(d) rule is implemented. However, for the NLEB 4(d) rule, the Service has provided a framework to streamline section 7 consultations when Federal actions may affect the NLEB but will not cause prohibited take. Federal agencies have the option to rely upon the finding of the programmatic biological opinion for the final 4(d) rule to fulfill their project-specific section 7 responsibilities by using the framework.

For more information on the NLEB Streamlined Consultation process and to download a Streamlined Consultation Form, visit:

<https://www.fws.gov/Midwest/endangered/mammals/nleb/s7.html>

Please note that use of the streamlined framework is optional, and an agency may choose to follow standard section 7 procedures instead. Even when take of NLEB is exempt, we encourage Federal agencies to implement voluntary conservation measures (i.e., winter tree removal) and avoid adverse effects to the species whenever possible.

If your project may result in prohibited take of NLEB (see “[NLEB 4\(d\) Rule Take Prohibitions](#)” above), standard section 7 procedures apply and this framework cannot be used.

3. Range-wide Programmatic Consultation for Indiana Bat and Northern Long-eared Bat (optional for Federal transportation projects that may affect NLEB):

The U.S. Fish and Wildlife Service and Federal Highway Administration (FHWA) have standardized their approach to assessing impacts to Indiana bats and NLEB from highway construction and expansion projects; then avoiding, minimizing and mitigating those impacts. This landscape-level conservation strategy encompasses the ranges of both bat species and provides transparency and predictability to FHWA and state Departments of Transportation (DOTs) through proactive planning. Information provided by this consultation and conservation strategy allows transportation agencies to strategically avoid projects in high impact or high risk areas for the Indiana bat and NLEB. For projects that cannot avoid impacts, project proponents receive information on ways to minimize impacts and preclude the need to revise projects later in their development. For large-scale projects or projects with greater impacts, priority conservation areas may be used to offset and minimize the impacts of the take. This approach is intended to increase the consistency of both project design and review, reduce consultation process timeframes and delays, and contribute meaningfully to the conservation of both species.

Please note that use of the Range-wide Programmatic Consultation for Indiana Bat and NLEB is optional for Federal transportation projects, and transportation agencies may choose to follow standard section 7 procedures instead. For more information on the Range-wide Programmatic Consultation for Indiana Bat and NLEB, including User Guide and Project Submittal Form documents, visit:

<https://www.fws.gov/Midwest/endangered/section7/fhwa/index.html>

V. MICHIGAN ECOLOGICAL SERVICES FIELD OFFICE CONTACT INFORMATION

Please contact the Michigan Ecological Services Field Office for more information on any projects occurring in Michigan.

U.S. Fish and Wildlife Service
Michigan Ecological Services Field Office
2651 Coolidge Road, Suite 101
East Lansing, MI 48823
Phone: 517-351-2555
Fax: 517-351-1443
TTY: 1-800-877-8339 (Federal Relay)
e-mail: EastLansing@fws.gov